REMARKS

Claims 1, 4, 7-9, 12-16, 53, 55-60, 62, 63, and 65-68 are pending in this application. Claims 2, 3, 5, 6, 10, 11, 17-52, 54, 61, and 64 were previously canceled. In view of the following remarks, Applicant respectfully requests reconsideration of the claims.

The Examiner evaluated all of the claims against the embodiment described in FIGs. 1-6 of the Boeck, *et al.* reference and then acknowledges that Boeck, *et al.* fails to teach "removing the second dielectric layer" (the second dielectric layer has the higher dielectric constant) "subsequent to the thermal processing step that is conducted at a temperature greater than the withstand temperature of the first dielectric material." Then, using a second embodiment of Boeck, *et al.* described with respect to FIGs. 7-10, the Examiner argues that the mere presence of a barrier layer 49 in Boeck, *et al.* is sufficient to make the claims obvious under 35 U.S.C. 103(a) since a person skilled in the art might find it desirable to anneal the barrier layer to remove pin holes.

However, Applicant submits that not only are the two embodiments of Boeck, *et al.* very distinct, but that there is no reasonable basis for combining steps from these two distinct embodiments. Further, it is physically impossible to do so and requires completely ignoring the earlier steps of this second embodiment that is associated with FIGs. 7, 8, and 9. Specifically, the first (i.e., the low k) dielectric material (40) is already deposited in place on the structure *before* the barrier layer 49 is deposited and, of course, before the barrier layer 49 could possibly be annealed. Therefore, since the first dielectric material 40 is already present, it would be impossible to remove the second dielectric layer *subsequent* to annealing the barrier layer 49 *and then* depositing the first (i.e., low k) dielectric layer. Second, as is clearly discussed at column 5,

line 46 through column 6, line 9 the first (i.e., low k) dielectric is exposed to a high temperature annealing process even before deposition of the barrier layer. Of course, avoiding such a high temperature process is a primary goal of the method of the present invention.

In addition, the Examiner makes the unsubstantiated argument that the second (i.e., high k) dielectric is usually annealed for densification purposes to allow etching of the vias and trenches. However, even if the Examiner could back up or substantiate this statement with prior art, this argument is still insufficient. For example, even if the Examiner can find a reference wherein a high temperature process is carried out prior to removing the second (i.e., high k) dielectric and then depositing the low k dielectric, as required by the claims of the present invention, the reference must also teach that the temperature of the process is greater than the "withstand temperature" of the first (low k) dielectric.

Therefore, it is respectfully submitted that he Examiner's reasons for rejection under 35 U.S.C. 103(a) would not be sufficient even if supported by the reference. However, it is clear that the Examiner's reasons for the rejection are not properly supported by references or documentation.

Claims 1, 13, 53, 60, and 63 were rejected using the Boeck, *et al.* reference alone in the manner discussed above. On the other hand, claims 7, 15, 56, 59, and 67 were rejected over Boeck, *et al.* in view of Seta. However, Seta does not remove the shortcomings of the Boeck, *et al.* reference, as described above, and therefore, these claims are allowable for the reasons discussed above as well as for their additional limitations.

In view of the above, Applicant respectfully submits that the application is in condition for allowance and requests that the Examiner pass the case to issuance. If the Examiner should have any questions, Applicant requests that the Examiner contact Applicant's attorney at 972-732-1001 so that such issues may be resolved as expeditiously as possible. No fee is believed due in connection with this filing. However, should one be deemed due, the Commissioner is hereby authorized to charge the appropriate fees to Deposit Account No. 50-1065.

Respectfully submitted,

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Date

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